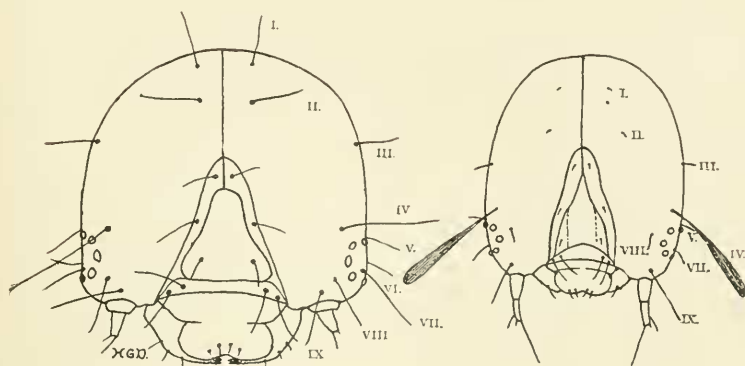


NOTE ON THE HEAD SETÆ OF LEPIDOPTEROUS
LARVÆ, WITH SPECIAL REFERENCE TO
THE APPENDAGES OF PERO-
PHORA MELSHEIMERII.

BY HARRISON G. DYAR, PH. D.

The peculiar flattened antenna-like organs on the head of *Cicinnus melsheimerii* have long been known. Harris says: "On each side, just behind the five ocelli, are two flexible, slender, spatulate antennæ (?) which, however, seem to be without joints and incapable of motion." Again he says: "On each side of the middle of the head there is a black flexible kind of antenna, very slender where it joins the head and broader toward the end like the handle of a spoon." Dr. Packard remarks: "This larva is especially remarkable for new structures not known to exist in any other caterpillars, viz., a pair of long appendages, the use of which is quite unknown. They arise by a slender stalk behind and a little above the eyes, on each side of the head; the base is cylindrical, but the appendage soon becomes flattened or compressed and flattened bulbous at the end. The structures are brittle, not flexible, and they easily break off." From the foregoing it would appear that the homology of these structures has not been recognized, although it is a very simple one. The structure is an enlarged and flattened seta, exactly analogous to those on the body of *Apatela funeralis* and a few other larvæ. That one of the head setæ should assume this form is perhaps unique, but no more surprising than that some of the body setæ should do so. As to its function we are ignorant, as is also the case in regard to the *Apatela*, though we may surmise that in both cases it is to present a terrifying appearance toward small enemies. In *A. funeralis* these grotesque setæ certainly heighten the effect produced by the conspicuous larval coloration, and it may be that in *C. melsheimerii*, when the head is protruded from the case, these setæ on it have a similar deterrent effect.

Figure 1 represents the front view of the head of a larva belonging to the Noctuid (Agrotides). I have numbered the setæ on the epicranium from above downward. Setæ i and ii are near the median suture, iii in the central part of the lobe, iv above and before the fourth ocellus (numbered from below upward), v behind the fifth ocellus, vi behind the eyes as a whole on a level with the third ocellus, vii is



within the circle of the eyes above and behind the second ocellus, viii is before the second ocellus, and ix is above the base of the antenna. The clypeal setæ are shown, but not numbered. Figure 2 represents *C. melsheimerii*. It is evident at a glance that the spatulate seta or antenna-like appendage is the fourth epicranial seta. The head of *C. melsheimerii* is coarsely roughened with broad rounded pits. All the upper setæ (namely i and ii on epicranium and the three upper clypeal setæ) are greatly reduced, only tiny rudiments remaining. Seta iii is small but distinct, iv is enormously enlarged and flattened, situated above and behind the fourth ocellus. All the lower setæ are normally developed.

Cicinnus belongs to the *Microlepidoptera* (Tineides), and the exact position of its head setæ is in many respects more directly comparable with other Tineides. For example in *Plutella porrectella*, seta viii is situated before the fourth ocellus as in *Cicinnus* and not low down near seta ix as in the Noctuidous larva shown. However, I have preferred to figure the Noctuidous larva, as the comparison is thus given a wider scope.

DESIDERATA OF NORTH AMERICAN NOTODONTIDÆ.

BY A. S. PACKARD.

The following gaps or desiderata occur in our knowledge of the larvæ or the life-history of the North American Notodontidæ, and attention is drawn to them here in order that collectors and students may aid us in filling them up. It is particularly requested that the desired